## ARS-2051PC/2074C/2078C Card Reader to SATA DVD Duplicator Controller

## User's Manual
— Version: 1.1 —

**Attention:**
Wait over 5 seconds to power on after shutdown to prevent the abnormal operation of the system.

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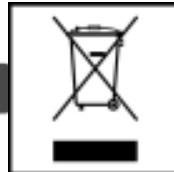ACARD Technology Corp. is not responsible for illegal recording.

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## WEEE Statement

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Mit dem Ziel die steigende Menge elektrischer und elektronischer Altgeräte zu bewältigen ohne hierzu unnötig Mülldeponien und Verbrennungsanlagen zu belasten und um die Verschmutzung der Umwelt durch freiwerdende Stoffe aus den Altgeräten zu vermeiden, hat die Europäische Union (EU) die Richtlinie über Elektro- und Elektronik-Altgeräte erlassen. Die Richtlinie verpflichtet Hersteller, elektrische und elektronische Altgeräte umweltgerecht einzusammeln, zu recyceln und zu entsorgen. Die Mitgliedsstaaten der EU haben bereits ihre kostenfreien Recyclesysteme konform der WEEE vor dem 13. August 2005 eingerichtet. Entsprechend der Richtlinie ist ACARD verantwortlich für die umweltgerechte Entsorgung aller nach Deutschland exportierten ACARD Produkte. Sie können Ihr zu entsorgendes ACARD Produkt zu Ihrer örtlichen Sammelstelle bringen.

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Met het doel de stijgende hoeveelheid afgedankte elektrische en elektronische apparatuur te beheersen zonder hiervoor onnodig stortplaatsen en verbrandingsovens te belasten en om de vervuiling van het milieu door vrijkomende stoffen uit de afgedankte apparatuur te voorkomen, heeft de Europese Unie (EU) de richtlijn betreffende afgedankte elektrische en elektronische apparatuur besloten. Deze richtlijn verplicht fabrikanten afgedankte elektrische en elektronische apparatuur in te zamelen, te recyclen en te verwijderen. De lidstaten van de EU hebben reeds de kosteloze recyclesystemen volgens de AEEA vóór de 13 augustus 2005 ingericht. Conform de richtlijn is ACARD verantwoordelijk voor de verwijdering van alle naar Nederland geëxporteerde ACARD producten. U kunt uw afgedankt ACARD product naar uw locale inzamelplaats brengen.

## Elektrik ve Elektronik Madde Atıkları Demeci

Elektrik ve electronik madde atıklarının yukselmesiyle basedebilmek ,arazi doldurma ve cop yakma fırını kullanımını azaltmak,atık madde zararlarının cevreye yayılmasını onlemek icin Avrupa Birligi (AB),ureticilerden elektrik ve elektronik madde atıklarını gerektigi gibi toplamalarını,geri donusturmelerini ve kimyasal isleme tabi tutmalarını talep etmek icin Elektrik ve Elektronik Madde Atıkları uzerine bir direktif hazırladı.Topluluk uyeleri,13 Agustos 2005' ten once  elektrik ve elektronik madde atıklarının ucretsiz geri donusum sistemlerini coktan olusturmuslardı.Bundan dolayı, ACARD, Almanya'ya ihrac ettigi butun urunlerin geri donusumunden sorumludur.ACARD urunleri geri donusum gerektirirse yerel toplayıcılara geri verebilirsiniz.

## WEEE бюлетень

## WEEE Statement

## RAEE

## Dichiarazione WEEE

# Chapter 1 Introduction

## 1.1 Overview

ARS-2051PC/2074C/2078C Card Reader to DVD Duplicator is a standalone duplicator controller with USB Card Reader supporting high speed DVD burning. It does not need connecting to a computer or require much learning. Simply through the LCD and the button on the panel you can make a DVD via USB Card Reader to burn direct to a DVD quickly. It is designed for the user who is looking for a way of making instant backup memory card data, more efficient and much simple solution, such as personal, SOHO and office users.

## 1.2 Features

- Standalone USB to SATA DVD/CD duplicator controller
- Totally independent without installing hardware or software
- Supports a built-in 3.5" or 2.5" hard disk drive
- Supports high-speed DVD/CD recording
- Backs up DVD/CD in minutes
- Has a user-friendly interface and shows messages with LCD
- Provides optional functions to extend application
- Firmware update by DVD-ROM

## 1.3 Specifications

- ACARD SATA Controller
- ACARD 32-bit RISC CPU
- 16Kbyte data cache inside the RISC CPU
- High reliability of SDRAM for embedded system
- 2 SATA interface channels (ARS-2051PC) / 4 SATA interface channels (ARS-2074C) / 8 SATA interface channels (ARS-2078C)
- USB ×1 / CF ×1 / SD ×1 / MS ×1 interface channel
- 2 × 16 LCD screen
- A membrane 4-buttons operation panel
- 512KB of flash memory for Copy Code
- Dimension : 190mm(W)×166mm(H)×270mm(D)
- Power Source : DC 5V

## 1.4 System Requirement

- Upright external case    ARS-2051PC:    2/3 x 5.25"
      ARS-2074C:    5/6 x 5.25"
      ARS-2078C:    9/10 x 5.25"
- A 300W power supply
- SATA cable
- DVD-ROM (DVD Copier)
- DVD writer x 1~2 (ARS-2051PC) / x 2~4 (ARS-2074C) / x 6~8 (ARS-2078C)
- A hard drive (optional)
- A removable hard drive rack (optional)

# Chapter 2  Hardware Installation

Before installing the ARS-2051PC/2074C/2078C, please note that this product comes in three kinds of packages: "Storage Controller Only", "Complete Backup System" and "Backup System Without DVD/CD Burners".

## 2.1 Stand-alone Duplicator Controller

- Open package to check for any problems.
- Provide DVD-ROM drive (Copy Mode).
- Provide 1~8 DVD Writers.
- Provide a 3.5"or 2.5" SATA HDD (optional).

## 2.2 Complete Duplication System

- Open package to check for any problems.
- Provide a 3.5" or 2.5" SATA HDD (optional).
- Check that the PSU provides enough wattage.

## 2.3 Duplication System with no DVD Writer

- Open package to check for any problems.
- Provide DVD-ROM drive (Copy Mode).
- Provide 1~8 DVD Writers.
- Provide a 3.5" or 2.5" SATA HDD (optional).
- Check that the PSU provides enough wattage.

## 2.4 Installing the ARS-2051PC

The following block diagram and pictures show the connection of the ARS-2051PC to a DVD-ROM, a SATA hard drive, and 1~2 DVD burners.
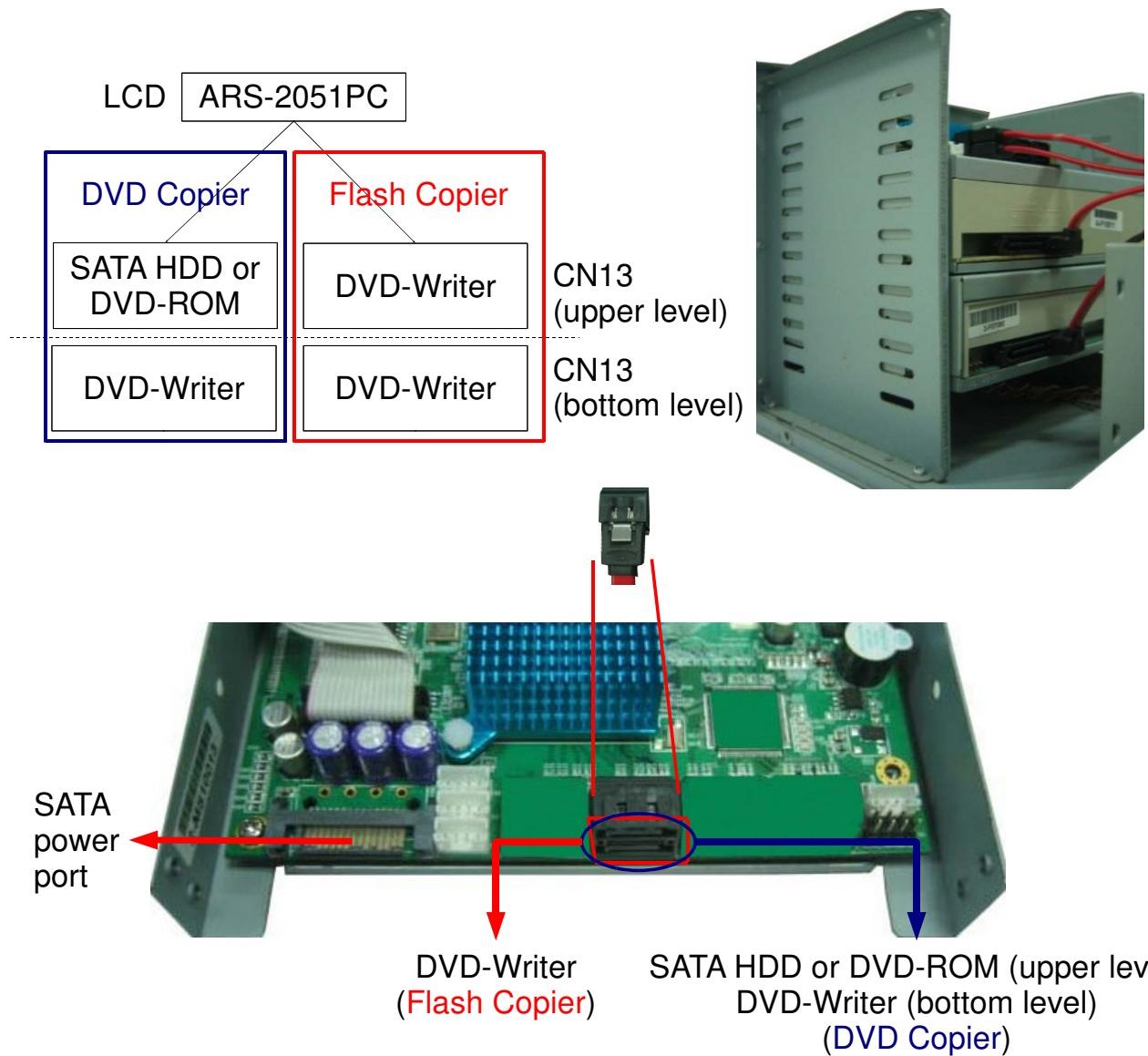


**Attention:** When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

## 2.5 Installing the ARS-2074C

The following block diagram and pictures show the connection of the ARS-2074C to a DVD-ROM, a SATA hard drive, and 2~4 DVD burners.
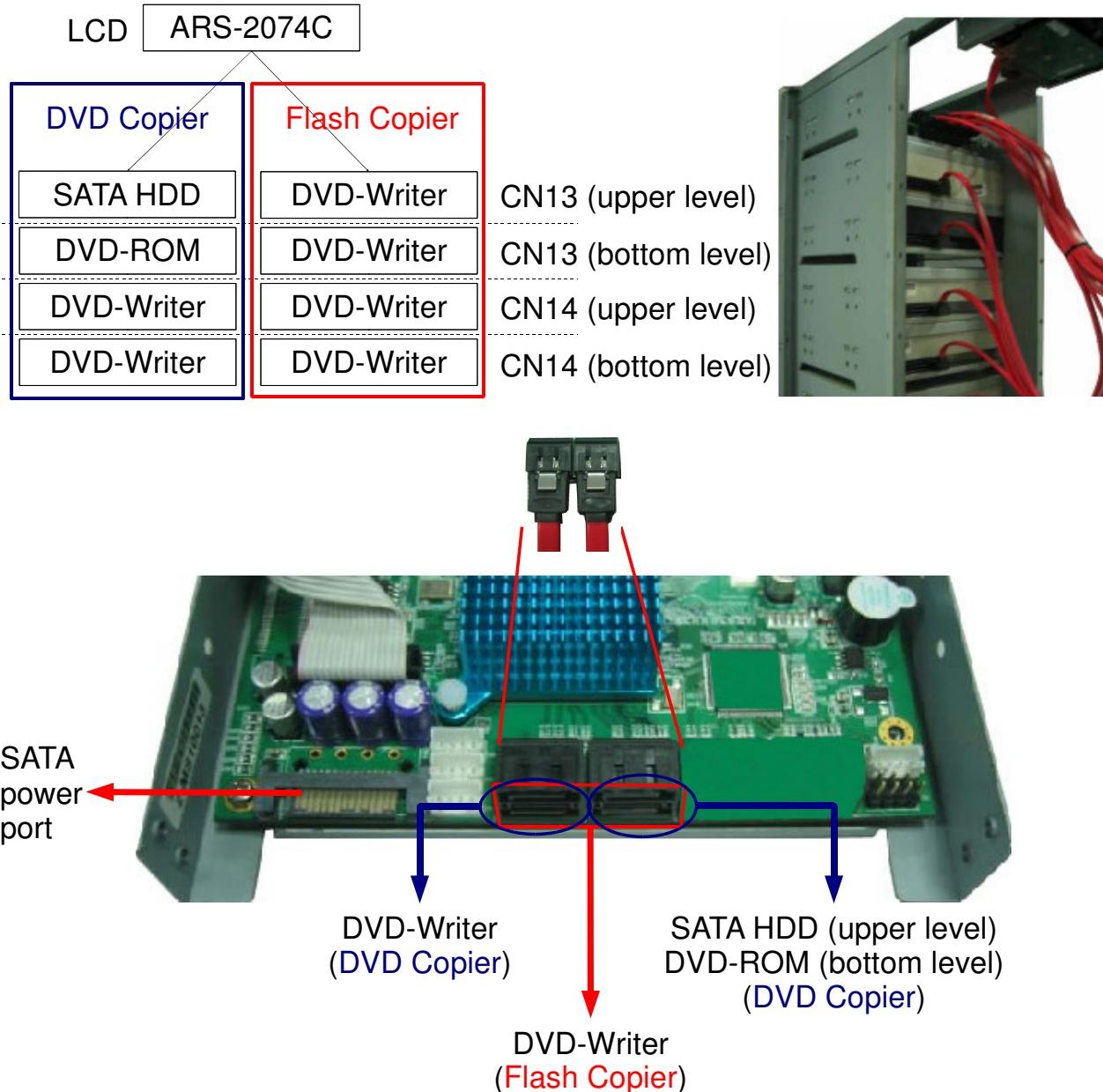


LCD ARS-2074C

| DVD Copier | Flash Copier | |
|---|---|---|
| SATA HDD | DVD-Writer | CN13 (upper level) |
| DVD-ROM | DVD-Writer | CN13 (bottom level) |
| DVD-Writer | DVD-Writer | CN14 (upper level) |
| DVD-Writer | DVD-Writer | CN14 (bottom level) |

SATA power port

DVD-Writer
(DVD Copier)

DVD-Writer
(Flash Copier)

SATA HDD (upper level)
DVD-ROM (bottom level)
(DVD Copier)

**Attention:** When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

## 2.6 Installing the ARS-2078C

The following block diagram and pictures show the connection of the ARS-2078C to a DVD-ROM, a SATA hard drive, and 6~8 DVD burners.
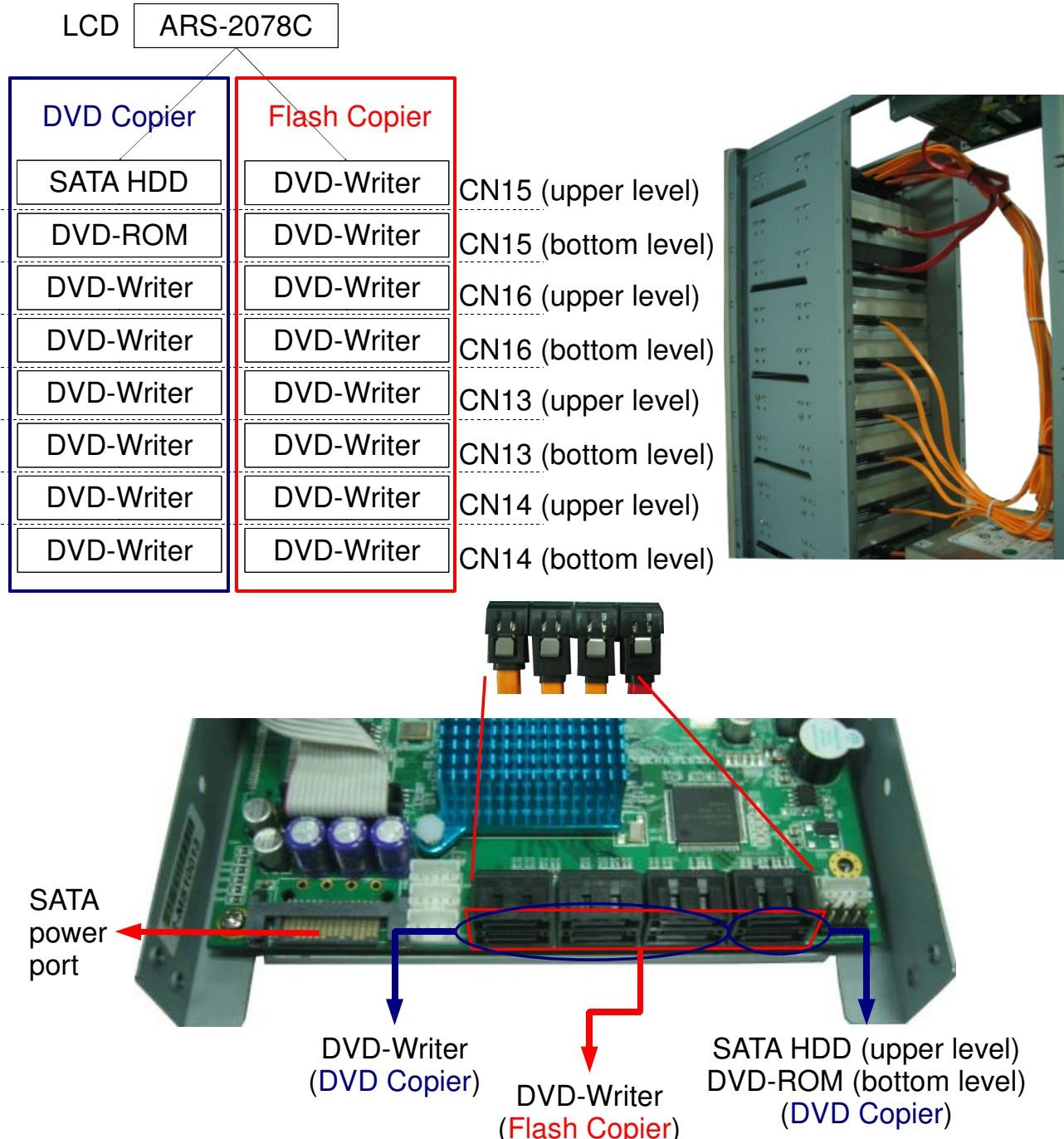
LCD | ARS-2078C

| DVD Copier | Flash Copier | |
|---|---|---|
| SATA HDD | DVD-Writer | CN15 (upper level) |
| DVD-ROM | DVD-Writer | CN15 (bottom level) |
| DVD-Writer | DVD-Writer | CN16 (upper level) |
| DVD-Writer | DVD-Writer | CN16 (bottom level) |
| DVD-Writer | DVD-Writer | CN13 (upper level) |
| DVD-Writer | DVD-Writer | CN13 (bottom level) |
| DVD-Writer | DVD-Writer | CN14 (upper level) |
| DVD-Writer | DVD-Writer | CN14 (bottom level) |

SATA power port

DVD-Writer (DVD Copier)

DVD-Writer (Flash Copier)

SATA HDD (upper level)
DVD-ROM (bottom level)
(DVD Copier)

**Attention:** When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

# Chapter 3 Basic Operations

## 3.1 The Keypad and LCD

There are 6 keys and one LCD on the panel of the ARS-2051PC/2074C/2078C duplicator controller.



Status LED
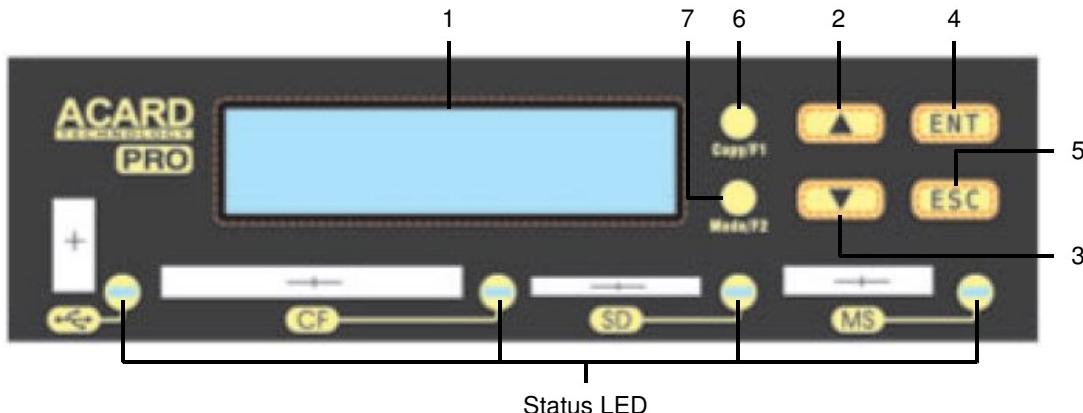
1. It shows a function or a message.
2. It's used to scroll up function menus.
3. It's used to scroll down function menus.
4. It's used to execute a function.
5. It's used to cancel a function.

6. It's a quick launch to copy.
7. It's a quick launch to change mode.

## 3.2 Installing the hard drive for DVD Copier

An internal hard drive is not required for all system operations. However, the Image function is available only when a hard drive is attached. With the Image function, additional sources – the image files in the hard drive – can be used for DVD/CD copying. The following two sections are brief operational procedures for the systems with and without an internal hard drive.

### 3.2.1  With an Internal Hard Drive

When a 3.5-inch SATA hard drive is connected to the ARS-2051PC/2074C/2078C, please follow the operational procedures below:

■ You can check if the hard drive is detected by the ARS-2051PC/2074C/2078C through the device information, function list no. 11-15. If a hard drive is detected and correctly recognized by the ARS-2051PC/2074C/2078C, the CH0 in the device information will be HDD. Before any operation, the hard drive has to be formatted. You can format the hard drive through the 13-04 function.
■ Set the hard drive as the source through the eighth function (Select Source). (The default value is source.)
■ Choose a partition for data storage through the ninth function, "Image".
■ If the selected partition is empty, insert a DVD/CD to the DVD-ROM and choose the 9-01 function, "Load". Press ENT to back up the DVD/CD to the selected partition. Different data should be stored in different partitions.
■ Exit the menu by pressing ESC and switch to the first function, "Copy", by pressing ▲ or ▼. Insert a blank DVD/CD into the DVD burner and press ENT to start copying.
■ Upon completion of data copying, the successfully duplicated DVD/CD will be ejected automatically. The default setting is automatic ejection and it can be changed.

■ The failed DVD/CD will be held in the DVD burner. The default setting keeps the failed DVD/CD in the burner and it can be changed. To eject the failed DVD/CD, you have to press the eject key on the DVD burner.
■ Do not press any key during the copying process. Abrupt interruption may damage the system and the DVD/CD.

## 3.3.2  Without an Internal Hard Drive

When a 3.5-inch SATA hard drive is not connected to the ARS-2051PC/2074C/2078C, please follow the operational procedures below:

■ Insert a source DVD/CD into the DVD burner.
■ Switch the first function, "Copy" by pressing ▲ or ▼. Insert a blank DVD/CD into the DVD burner and press ENT to start copying.
■ Upon completion of data copying, the successfully duplicated DVD/CD will be ejected automatically. The default setting is automatic ejection and it can be changed.
■ The failed DVD/CD will be held in the DVD burner. The default setting keeps the failed DVD/CD in the burner and it can be changed. To eject the failed DVD/CD, you have to press the eject key on the DVD burner.
■ Before installing any hardware, please check the SATA cable first.

**Please check that the SATA cable is properly connected before installing the hardware.**

The SATA HDD can be connected directly to the SATA port on the ARS-2051PC/2074C/2078C board via the SATA cable.
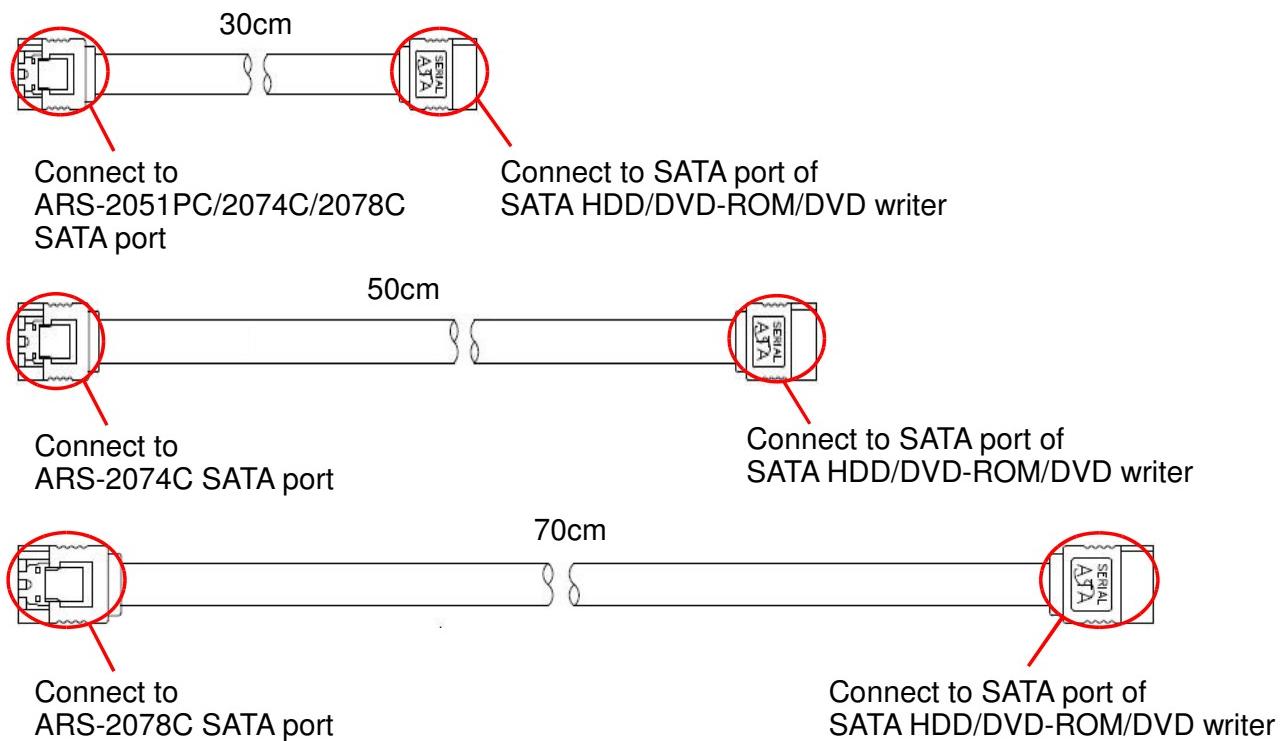
30cm

Connect to
ARS-2051PC/2074C/2078C
SATA port

Connect to SATA port of
SATA HDD/DVD-ROM/DVD writer

50cm

Connect to
ARS-2074C SATA port

Connect to SATA port of
SATA HDD/DVD-ROM/DVD writer

70cm

Connect to
ARS-2078C SATA port

Connect to SATA port of
SATA HDD/DVD-ROM/DVD writer

**Attention:** When connecting SATA cable to the port, plug it in till you hear a click. To unplug the SATA cable, press the latch and remove it. (Do not force to remove the cable.)

# Chapter 4 PCB Layout

The layout of the ARS-2051PC is shown below:
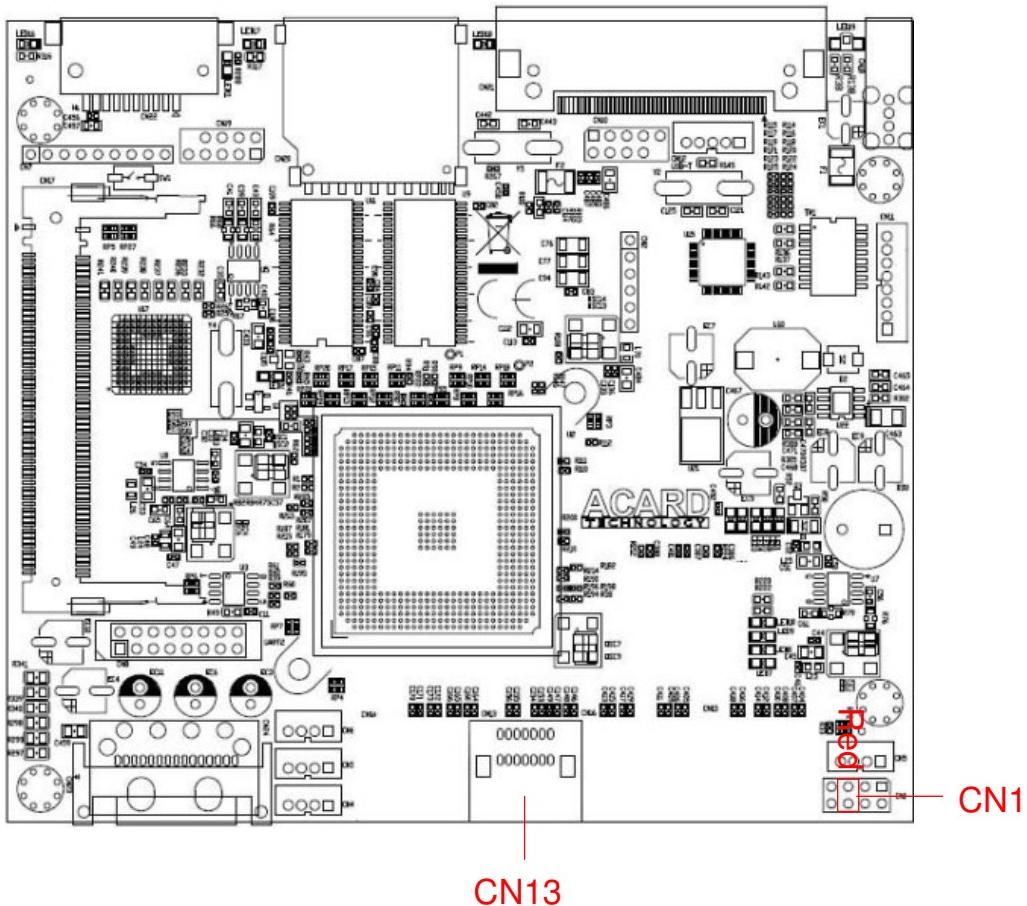


CN24: SATA power port
CN13: The target DVD-Writer (Flash Copier)
CN13 (upper leverl): The source SATA HDD or source DVD-ROM (DVD Copier)
CN13 (bottom leverl): The target DVD-Writer (DVD Copier)
CN1: USB signal link (connects with ARS-4420S)

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The layout of the ARS-2074C is shown below:
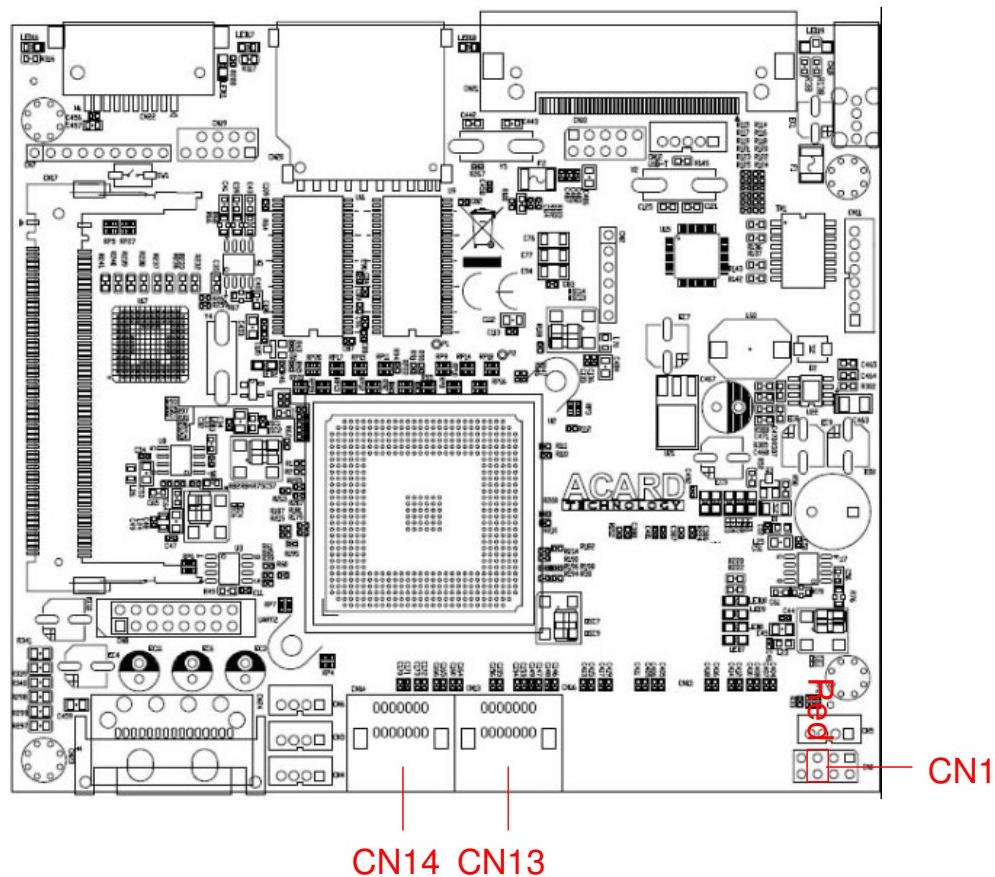


CN24: SATA power port
CN13 & CN14: The target DVD-Writer (Flash Copier)
CN13 (upper leverl): The source SATA HDD (DVD Copier)
CN13 (bottom leverl): The source DVD-ROM (DVD Copier)
CN14: The target DVD-Writer (DVD Copier)
CN1: USB signal link (connects with ARS-4420S)

The layout of the ARS-2078C is shown below:
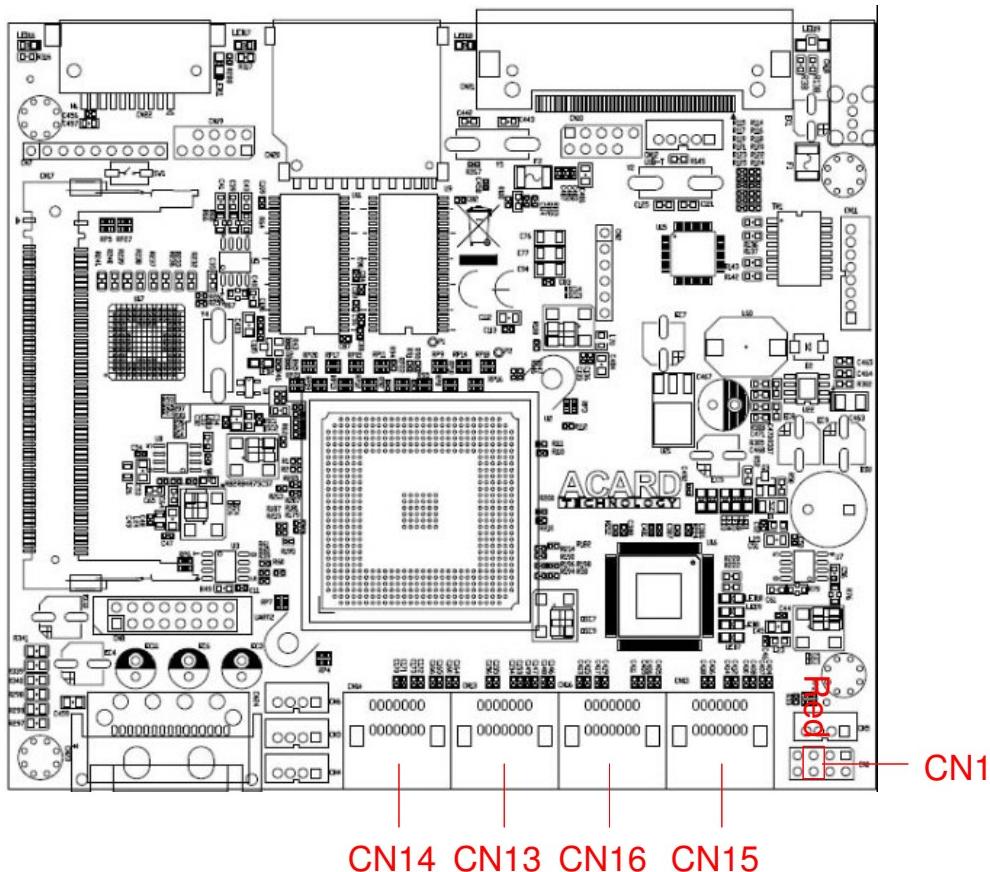


CN24: SATA power port
CN13 & CN14 & CN15 & CN16: The target DVD-Writer (Flash Copier)
CN15 (upper leverl): The source SATA HDD (DVD Copier)
CN15 (bottom leverl): The source DVD-ROM (DVD Copier)
CN13 & CN14 & CN16: The target DVD-Writer (DVD Copier)
CN1: USB signal link (connects with ARS-4420S)

# Chapter 5 Operational Functions

The ARS-2051PC/2074C/2078C has two operational modes: Flash Copier and DVD Copier (The default setting is Flash Copier.). Users can select the operational mode through the "Model Select" function.

## 5.1 Flash Copier

There are 9 major functions in the copy controller as the following figure shows, and there are subfunctions in Function 9 as the following figures show.

Duplicator controller
- 1. Mem.Card Copy
- 2. Verify
- 3. Compare
- 4. Mem.Card Info
- 5. Disc Info
- 6. Restore Card
- 7. Erase Disc
- 8. Model Select
- 9. Setup
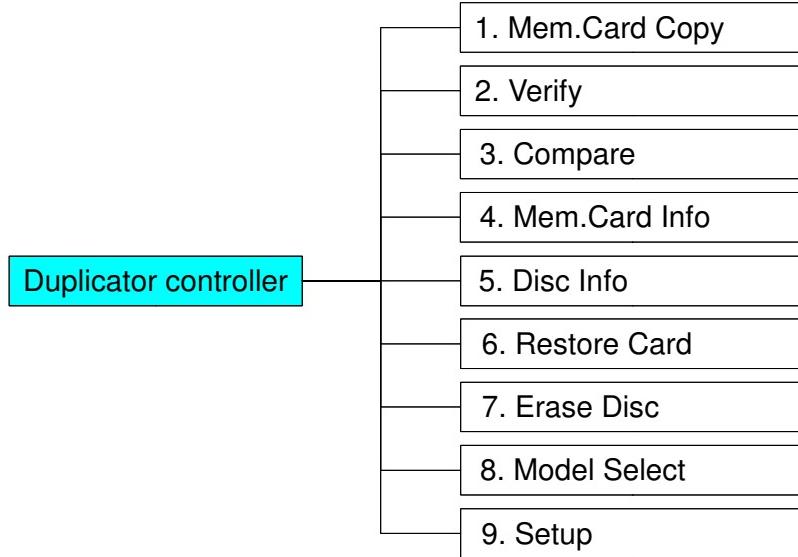
In Function 9 there are 9 subfunctions.

9. Setup
- 9-01. Language
- 9-02. Burn Speed
- 9-03. Eject Disc
- 9-04. Multi-Session
- 9-05. Button Sound
- 9-06. Device Info
- 9-07. System Info
- 9-08. Update Firmware
- 9-09. Compare Firmware
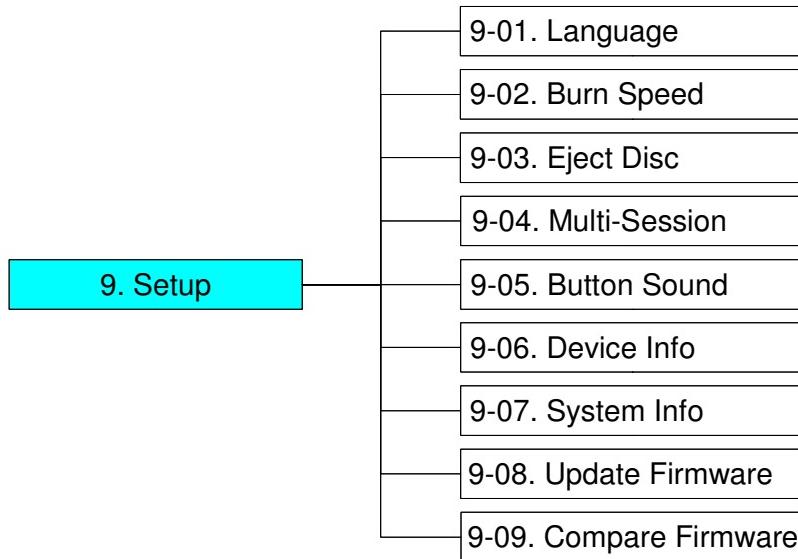
## 5.1.1 Mem. Card Copy

The "Mem. Card Copy" function copies the data of the source flash media directly to a blank DVD/CD. Before copying, please make certain that the source flash media is inserted into the correct slot on the card reader. Check the file size of the flash media and choose a proper DVD or CD.

When the source has more data than the capacity of the target disc, the system automatically splits the data. However, if the data is an inseparable data block, the copying operation will be aborted. In this case, please use a target disc with larger capacity than the source.

Choose the first function, "Copy". Insert the source media into the correct slot on the card reader and a blank DVD/CD into the DVD burner. You may use a rewritable DVD with existing data. All the existing data on that rewritable DVD will be erased.

```
1. Mem. Card Copy
```

After the system detects the flash media and the target DVD, press ENT to start copying. The following message will be displayed on the LCD.

```
Copying      28%
62.00MB   00:45
```

If the target disc has a smaller capacity than the source, you will be prompted, when the above copying process is completed, to insert a new blank target disc to continue the copying process until the source is fully duplicated. The following message will be displayed on the LCD.

```
Change next disk
and press ENTER
```

Insert a blank CD/DVD and press ENT when you see the above message on the LCD. Then, the following message will be displayed on the LCD.

```
Copy next disk
Please wait ...
```

After the source is fully duplicated, the following message will be displayed on the LCD. The data volume and the copy time in the figure decrease while the completed percentage increases. Upon completion of data copying, the following message will be displayed on the LCD. The successfully duplicated DVD will be ejected automatically.

```
Copy  to  Disc
OK:8   SKIP:  0
```

## 5.1.2 Verify

The "Verify" function verifies the duplicated DVD. Choose the second function, "Verify".

```
2. Verify
```

Press ENT to start data verification. The following verification information will be displayed on the LCD.

```
Verifying      28%
 62.00MB   00:10
```

Upon completion of data verification, the following message will be displayed on the LCD.

```
Verify  DVD
OK: 8
```

## 5.1.3 Compare

The "Compare" function compares the data in the source flash media with that in the target DVD after the copying operation. Choose the third function, "Compare". Insert the source flash media into the proper slot on the card reader and the target DVD into the DVD burner.

```
3. Compare
```

Upon completion of comparing data, the following message will be displayed on the LCD.

```
Compare   OK: 8
Diff: 0        Fail: 0
```

## 5.1.4 Mem. Card Info

The "Mem. Card Info" shows the basic information of the source flash media.

Choose the fourth function, "Mem. Card Info". Insert the source flash media into the proper slot on the card reader.

```
4. Mem.Card Info
```

Press ENT and the following menu will be shown on the LCD.

```
File:18
Used:4873.7MB ▶
```

Press ENT and the following menu will be shown on the LCD.

```
Dir:7
Used:4873.7MB ▶
```

Press ESC to exit the menu when you finish.

## 5.1.5 Disc Info

The "Disc Info" shows the basic information of the target DVD.

Choose the fifth function, "Disc Info". Insert the target DVD into the DVD burner.

```
5.Disc Info
```

Press ENT and the following disc information will be shown on the LCD.

```
CH 01    533.9MB
File:4            ▶
```

Press ENT and the following menu will be shown on the LCD.

```
CH 01    533.9MB
Dir:1            ▶
```

You can browse the disc information of the different target discs with the buttons ▲ and ▼.

## 5.1.6 Restore Card

The "Restore Card" function restored the data on the target disc to the flash media. Those restored data will be appended to the flash media as long as it has free space.

Choose the sixth function, "Restore Card". Insert a flash media with enough free space into the card reader and the target disc with restoring data into the DVD burner.

```
6. Restore Card
```

Press ENT to start restoring data. The following disc information will be displayed on the LCD.

```
Restore        0%
4489.1MB  00:07
```

The completed percentage increases while the data volume and the copy time decrease. Upon completion of data restoring, the following message will be displayed on the LCD.

```
Restore to flash
OK!!
```

## 5.1.7 Erase Disc

The "Erase Disc" function erases data on the rewritable disc in the target burner.

Choose the seventh function, "Erase Disc". Insert the target rewritable disc in the DVD burner.

```
7. Erase Disc
```

Press ENT to enter the following menu. Select "Quick Erase" or "Full Erase" with the buttons ▲ and ▼. This function clears the data on the rewritable DVD. "Full Erase" takes longer than "Quick Erase".

```
7-01.Setup
Quick  Erase
```

Press ENT to enter the following menu.

```
ALL date will be
Lost erase? Yes
```

Press ENT to enter the following menu and start "Quick Erase".

```
Erasing disc
00:12      (Quick)
```

Upon completion of data erasing, the following message will be displayed on the LCD.

```
Quick  Erase
OK:01
```

## 5.1.8 Model Select

The function "Model Select" sets the operational mode of the copy controller. The 2051PC has two operational modes: Flash Copier and DVD Copier (The default mode is Flash Copier.).

```
8.Model Select
```

Press ENT to enter the following menu. Choose "Yes" to switch to the DVD Copier.

```
Change Mode to
DVD Copier?  Yes
```

Press ENT and the system is now in the DVD Copier. The following menu will be shown on the LCD.

```
1. Copy
```

## 5.1.9 Setup

The "Setup" function changes the default settings. Once the settings are changed, they have to be saved by pressing ENT. However, the default settings are recommended for the best performances. This function has 9 subfunctions, including: Language, Burn Speed, Eject Disc, Multi-session, Button Sound, Device Info, System Info, Update Firmware andCompare Firmware. Please refer to the figure on Page 18 for detailed information.

Choose the ninth function, "Setup" as shown in the following figure.

```
9. Setup
```

### 5.1.9.1 Language

Now, press ENT to enter the following menu. This function can specify the language of the LCD messages.

```
9-01. Setup
Language
```

Press ENT to enter the following menu. The default setting is English. You can change the display language to Spanish, Japanese, Traditional Chinese and Simplified Chinese.

```
Language
English
```

### 5.1.9.2 Burn Speed

Now, press ESC and ▼ to enter the following menu. This function controls the burning speed of the DVD burner.

```
9-02.Setup
Burn Speed
```

Press **ENT**. The DVD Burn Speed will be shown and the default is 16X. Press▼ for change the selection. The selection to CD Burn speed and the default setting is Maximum.  Press ▼ for change to Audio Burn Speed the selection and the default is Maximum
.

### 5.1.9.3  Eject Disc

Now, press ESC and ▼ to enter the following menu. This function has 3 options: Eject Good Only, Eject All Disc and Do Not Eject. When the "Eject Good Only" option is selected, the system automatically ejects only those successfully duplicated discs. When the "Eject All Disc" option is selected, the system ejects all discs, be it successful or failed. When the "Eject Good Only" option is selected, the finished disc has to be ejected manually.

```
9-03.Setup
Eject Disc
```

Press ENT to enter the following menu. The default setting is "Eject Good Only". Choose "Eject All Disc" or  "Do Not Eject" with the ▼ button.

```
Eject Disc
Eject Good Only
```

### 5.1.9.4 Multi-Session

Press ESC and ▼ to select Multi-Session as the following figure shows. This is for add data into the disc for the next time.

```
9-04. Setup
Multi-Session
```

Press ENT to enter the next figure. The default is On. Press ▼ to select Off.

```
Multi-Session
Set up on
```

### 5.1.9.5 Button Sound

Now, press ESC and ▼ to enter the following menu. This function controls the sound of the button when it is pressed.

```
9-05.Setup
Button Sound
```

Press ENT to enter the following menu. The default setting is "On". You can change it to "Off" by pressing ▼.

```
Button Sound
On
```

### 5.1.9.6 Device Info

Now, press ESC and ▼ to enter the following menu. This function shows the information of the DVD-ROM and all the DVD burners connected to the controller.

```
9-06.Setup
Device Info
```

Press ENT to enter the following menu.

```
00  CH00 Slave
S-MULTI:PIONEER
```

Press ENT to enter the following menu.

```
DVD-RW DVR-112
1.24
```

### 5.1.9.7  System Info

Now, press ESC and ▼ to enter the following menu. This function shows the system information.

```
9-07. Setup
System Info
```

Press ENT to enter the following menu.

```
2078C  Ver:1.05C
2011/ 3/17ACARD
```

Press ENT to enter the following menu.
Press ESC to exit the menu when you finish.

### 5.1.9.8  Update Firmware

Now, press ESC and ▼ to enter the following menu. Burn the firmware onto the disc, insert the disc into the burner and close the disc tray. You can download the firmware at www.acard.com.

```
9-08.Setup
Update firmware
```

Press ENT and follow the prompts to update the firmware. The "No F/W File" message means that there is no valid firmware file on the source disc. You have to download the proper firmware and burn it onto a disc to update the firmware. Updating the firmware may damage your system.

### *Note:*
Do not turn off the power during firmware updating. Otherwise, the system may be damaged.

### 5.1.9.9  Compare Firmware

Now, press ESC and ▼ to enter the following menu. This function compares the current version of firmware and the newly download firmware. It verifies whether the download version is the latest.

```
9-09.Setup
Compare Firmware
```

# 5.2 DVD Copier

This mode uses the hard drive as the default source for data copying. Here, as an introductory example, we use one of the burners as the copying source.

(Note: To use the hard drive as the source, you have to load the data on the disc to some partition of the hard drive first. Next, you should carry out the HDD to DVD/CD copying, i.e. 1 to 3. If you use one of the burners as the copying source, you should perform the 1-to-2 copying operation.)

The duplicator controller has 13 functions in total, 10 sub-functions under the Function 9, 3 sub-functions under the Function 10, 22 sub-functions under the Function 12 and 22 sub-functions under the Function 13. These functions are listed below.
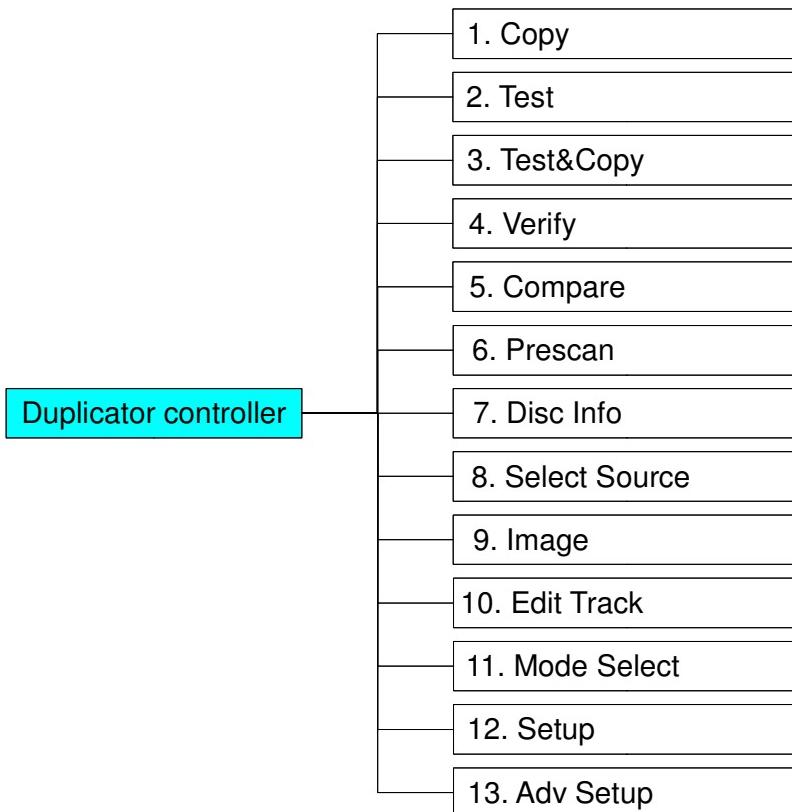


In Function 7 there are 2 subfunctions.
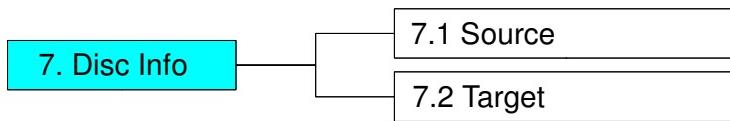
In Function 9 there are 10 subfunctions.

| | 9.1 Load |
| | 9.2 Delete Image |
| | 9.3 Image Info |
| | 9.4 Compare Image |
| **9. Image** | 9.5 Select Image |
| | 9.6 Image Src Drvie |
| | 9.7 ImageFormat Info |
| | 9.8 Edit |
| | 9.9 Format HDD |
| | 9.10 LoadImage Method |
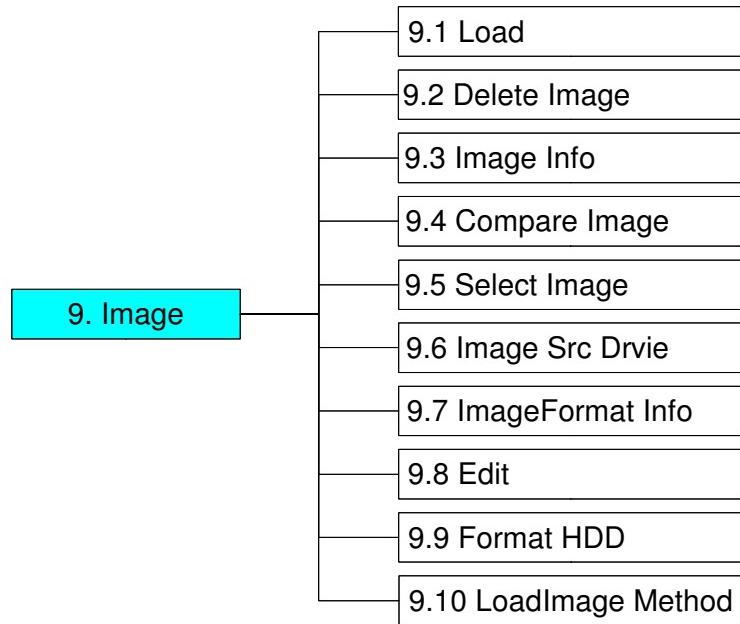
In Function 10 there are 3 subfunctions.

| | 10.1 CD to CD Edit |
| **10. Edit Track** | 10.2 CD to HDD Edit |
| | 10.3 Close Session |
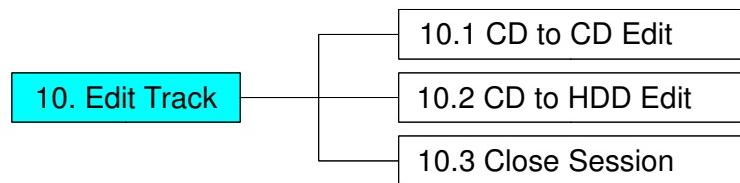
In Function 12 there are 22 subfunctions.

| | |
|---|---|
| | 12.1 Language |
| | 12.2 Burn Speed |
| | 12.3 Auto Start Drive |
| | 12.4 Auto Verify |
| | 12.5 Auto Compare |
| | 12.6 Auto Prescan |
| | 12.7 Eject Disc |
| | 12.8 Burn On The Fly |
| | 12.9 Burn Mode |
| | 12.10 Display Time |
| | 12.11 Button Sound |
| 12. Setup | 12.12 Device Info |
| | 12.13 System Info |
| | 12.14 Quick Erase |
| | 12.15 Full Erase |
| | 12.16 Auto Close Tray |
| | 12.17 Quick Compare |
| | 12.18 Tray-In/Out |
| | 12.19 BootTime Delay |
| | 12.20 Start Tray Eject |
| | 12.21 Disc Redetect |
| | 12.22 Show Burn Speed |

In Function 13 there are 22 subfunctions.

```
                                          ┌──────────────────────────┐
                                          │  13.1 UnderRun Protect   │
                                          ├──────────────────────────┤
                                          │  13.2 Overburn           │
                                          ├──────────────────────────┤
                                          │  13.3 Read Error Skip    │
                                          ├──────────────────────────┤
                                          │  13.4 Format HDD         │
                                          ├──────────────────────────┤
                                          │  13.5 Venify HDD         │
                                          ├──────────────────────────┤
                                          │  13.6 Burn-in            │
                                          ├──────────────────────────┤
                                          │  13.7 Update Firmware    │
                                          ├──────────────────────────┤
                                          │  13.8 Compare Firmware   │
                                          ├──────────────────────────┤
                                          │  13.9 H/W Diagnostic     │
                                          ├──────────────────────────┤
                                          │  13.10 Load Default      │
                                          ├──────────────────────────┤
                                          │  13.11 CD+G              │
    ┌──────────────────┐                  ├──────────────────────────┤
    │  13. Adv Setup   │──────────────────│  13.12 ISRC & MCN        │
    └──────────────────┘                  ├──────────────────────────┤
                                          │  13.13 USB Option *      │
                                          ├──────────────────────────┤
                                          │  13.14 CD-TEXT           │
                                          ├──────────────────────────┤
                                          │  13.15 Password          │
                                          ├──────────────────────────┤
                                          │  13.16 Disc Counter      │
                                          ├──────────────────────────┤
                                          │  13.17 Auto Save Image   │
                                          ├──────────────────────────┤
                                          │  13.18 Update Drive F/W ^│
                                          ├──────────────────────────┤
                                          │  13.19 F1 Hotkey Setup   │
                                          ├──────────────────────────┤
                                          │  13.20 F2 Hotkey Setup   │
                                          ├──────────────────────────┤
                                          │  13.21 Index             │
                                          ├──────────────────────────┤
                                          │  13.22 AutoRun Time      │
                                          └──────────────────────────┘
```

\* This is a special function. See Page 18 for details.
^ Hidden function if the drive you connected is not supportd.

Among the 13 functions, Function 10 Edit Track is designed exclusively for editing a collection of favorite songs from CDs. During operation if you don't understand an LCD message, see Appendix A .

## 5.2.1 Copy

Function 1 Copy is copy functions allows instant copy of source (original disc/image) to the target drives (burners). Before copying be sure that the source DVD is placed into DVD-ROM, or there are data in a certain HDD partition if you have installed a hard drive. If you are not so sure of real copying, use Function 2 Test to simulate first.

Select function 1. Put a source DVD into DVD-ROM and blank DVDs into the DVD writers. A rewriteable DVD containing old data is also usable, but the old data will be automatically erased.

```
1. Copy
```

After the DVD-ROM and DVD writers detect DVDs, press ENT to start copying. LCD will show the copying information as follows.

```
Copying-DVD    0%
4213.4MB      0:01
```

When copying is in progress, MB and time will decrease while the percentage of completion will increase. "MB" means the size of data that you want to copy.

When copying comes to an end, LCD will show the results as follows. The passed DVDs will eject automatically.

```
1. Copy
OK: 08
```

## 5.2.2 Test

Function 2 Test is simulation of duplication function, no data will be written to the media (CD-R/DVD-R).

Select function 2. Put a source DVD into DVD-ROM and blank DVDs into the DVD writers. Only a DVD-R disc supports this function.

```
2. Test
```

Press ENT to start simulation. If you use DVD rewriteable discs that contain data, the old data will be quickly erased before simulation as shown below.

```
Erasing disc
```

LCD will show the testing information as follows.

```
Testing-DVD    0%
4213.4MB      7:30
```

When the test comes to an end, LCD will show the results as follows.

```
2. Test
OK: 08
```

Stopping the test halfway does not affect the DVDs, but if the DVD-rewriteable discs contain important data, they may be destroyed.

## 5.2.3 Test & Copy

Function 3 Test & Copy is to test first and then copy actually.

Select function 3. Put a source DVD into DVD-ROM and blank DVDs into the DVD writers.

```
3. Test & Copy
```

Press ENT to start simulation. LCD will show the testing information as follows.

```
Testing-DVD      0%
4213.4MB       7:30
```

When the test finishes, actual copying will begin as shown below.

```
Copying-DVD      0%
4213.4MB       7:30
```

When the whole process finishes, LCD will show the results as follows.

```
3. Test & Copy
OK: 08
```

Note that those discs that have passed the test will be copied right away while those that haven't won't be.

## 5.2.4 Verify

Function 4 Verify is to verify the data burned on CD/DVDs.

Select function 4.

```
4. Verify
```

Press ENT to verify. LCD will show the verification information as follows.

```
Verify-DVD       0%
4213.4MB       7:30
```

When verification comes to an end, LCD will show the results as follows.

```
4. Verify
OK: 08
```

## 5.2.5 Compare

Function 5 Compare is to make a comparison between the source DVD and the target DVDs after copying.

Select function 5. Put the source DVD into DVD-ROM and the target DVDs into DVD writers.

```
5. Compare
```

Press ENT to compare. LCD will show the comparison information as follows.

```
Compare-DVD    0%
4213.4MB       7:30
```

When comparison comes to an end, LCD will show the results as follows.

```
Compare      OK: 08
Fail: 0       Diff: 0
```

Press ENT to see the details of source 1 as shown below.

```
Src: 02  DVD-RW
Identical
```

If comparison fails, LCD will show the failure. By pressing ENT twice, LCD will show that the contents of source 1 and those of source 2 do not match as follows.

```
Src: 02  DVD-RW
TOC not match
```

## 5.2.6 Prescan

Function 6 Prescan is to scan if the source DVD can be read correctly, and by the way to test the reading speed.

Select function 6. Put the source DVD into DVD-ROM.

```
6. Prescan
```

Press ENT to prescan. LCD will show the scanning information as follows.

```
Scaning-DVD    0%
4213.4MB       0:01
```

When scanning finishes, and the source DVD can be read correctly, LCD will show the results as follows.

```
PreScan OK!
```

## 5.2.7 Disc Info

Function 7 Disc Info is to generate a simple report of the source.

Select function 7. Put the source DVD into DVD-ROM.

```
7. Disc Info
```

Press ENT, and LCD will show the DVD information as follows.

```
7-01.Disc Info
Source
```

## 5.2.8 Select Source

Function 8 Select Source is to identify and assign source drives.

Select function 8.

```
8. Select Source
```

Press ENT, and then press ▲ ▼ to select the source as shown below.

```
Src:SUPER MULTI
00  CH01
```

After selecting the source such as DVD-ROM, you can press ENT, and LCD will show the message as follows.

```
S-MULTI selected
```

Suppose you select HDD as the source and try to copy from one of its partitions, but the partition contains no data, an error message will appear on LCD.

```
Source Drive
Not Ready
```

At this moment, you can switch to another partition that contains data, or use function 9 Image to load the data into the chosen partition first.

## 5.2.9 Image

Function 9 Image is valid only when you have installed a hard disk. This function includes 7 subfunctions: Load, Delete Image, Image Info, Compare Image, Select Image, Select Src Drive, and Image Format Info. The loaded data is called an image file. Refer to page 26 for the menu.

Select function 9.

```
9. Image
```

### 5.2.9.1 Load

Now press ENT, and you will enter the following figure. Here the function Load is to let you load data from DVD-ROM or any one of the DVD writers into the current partition of the hard disk. "P:A" means partition A.

```
9-01. Image    P:A
Load
```

Press ENT to load. LCD will show the loading information as follows.

```
Load-A-DVD   0%
4213.4MB    0:01
```

After the image file is successfully loaded, LCD will show the results as follows.

```
Image load OK
```

If there is an image file existing in the current partition, the system will ask you whether to overwrite it or not. Please use ▲ ▼ to confirm Yes or No.

```
Image Exists
Overwrite ? Yes
```

### 5.2.9.2 Delete Image

If you want to delete an image file stored in a particular partition, you can use the function Delete Image to do so. First, select the function by pressing ▼.

```
9-02. Image      P:A
Delete Image
```

The system will ask if you are sure to delete. Use ▲ ▼ to confirm Yes or No.

```
Delete Image ? Yes
A: Untitled!!
```

After the image file is deleted, LCD will show the results as follows.

```
Partition  A:
Image is deleted
```

### 5.2.9.3 Image Info

This function is to show the basic information of an image file stored in a particular partition. First, select the function by pressing ▼.

```
9-03. Image      P:A
Image Info
```

Press ENT, and LCD will show the information of the image file as follows.

```
Img Type:DVD+R
Capacity: 4213.4MB
```

### 5.2.9.4 Compare Image

This function is to compare the contents of the source DVD and those of the image file in the partition. First, select the function by pressing ▼.

```
9-04. Image      P:A
Compare Image
```

Press ENT, and LCD will show the information of the image file as follows.

```
Com-A-DVD     0%
4213.4MB     0:01
```

When comparison comes to an end, LCD will show the results as follows.

```
Compare      OK:8
Fail:0       Diff:0
```

Press ENT to see the details of source as shown below.

```
Src: 01SUPER MUL
Total: 4213.4MB
```

Press ENT to see the details of target. If the comparison is identical, LCD will show the message as follows.

```
Tgt: 00   HDD   P:A
Identical
```

If comparison fails, LCD will show the failure. By pressing ENT twice, LCD will show that the contents of source and those of target do not match as follows.

```
Tgt: 00   HDD   P:A
TOC not match
```

### 5.2.9.5 Select Image

This function is to select a partition in the hard disk. First, select the function by pressing ▼.

```
9-05. Image     P:A
Select Image
```

After installing a hard disk, your copy controller will format it automatically. Each partition occupies 5GB. The number of partitions is dependent on the hard disk's capacity. The partitions are alphabetically arranged. Select a partition by pressing ▲ ▼ , and LCD will show the message as follows.

```
Select  Partition
A: DVD    4213.4MB
```

After the partition is selected, LCD will show the results as follows.

```
Set  Partition to
A
```

### 5.2.9.6 Image Src Drive

This function is to select DVD-ROM or any of the DVD writers as the source from which you can load data into a particular partition as an image file.

First, select the function by pressing ▼.

```
9-06. Image     P:A
Image Src Drive
```

Then, use ▲ ▼ to select DVD-ROM or any of the DVD writers as the source.

```
Select Img Src:
01 CH01  S-MUTLI
```

After selecting the source such as DVD-ROM, you can press ENT, and LCD will show the message as follows.

```
Load image from
Drive  ID-01
```

### 5.2.9.7 Image Format Info

This function is to see how you have formatted your hard disk. It is related to function 12.4 Format HDD. There are 3 formats for choice: CD, DVD, and DL (Double Layer).

Now press ESC and ▼ to enter the following figure.

```
9-07. Image     P:A
Image Format Info
```

Press ENT to see the following figure. This figure shows that the hard disk has been formatted as DVD.

```
Image Format Info
Auto
```

### 5.2.9.8 Edit

This function is to name a certain partition, but only when the partition contains an image file can title editing be valid. First, select the function by pressing ▼.

First, select the function by pressing ▼.

```
9-08. Image     P:A
Edit
```

Press ENT. A title should be composed of 1 to 13 characters. The character can be A, B, C, etc. or 1, 2, 3, etc. or the combination of both. Use ▲ ▼ to select the number or alphabet. After selecting a desired one, press ENT.

```
Edit Title
?
```

### 5.2.9.9 Format HDD

Hard disk must be formatted by the system for the very first time. Hard disk will be partitioned into the chosen partition format.

```
9-09. Image     P:A
Format HDD
```

If no hard disk is installed, LCD will show the message as No Valid HDD!

All data on the hard drive will be erased after the hard disk format.

After the hard drive is formatted correctly, LCD will show " Format HDD ok!.", Press ENT to verify HDD or press ▼ and choose No return back to menu.

### 5.2.9.10  LoadImage Method

This function is to change the way to save Image. There are 2 formats for choice: Auto and Manual. Auto means system auto assign partition for loaded image. Manual let you to choose which partition to load image to.

```
9-10. Image     P:A
LoadImage Method
```

The default is Auto.

Press ENT, and use ▲ ▼ to confirm Auto or Manual.

Then press ENT to save the configuration**.**

## 5.2.10 Edit Track (for Audio CD only)

Function#10 Edit Track is exclusively designed for editing a collection of favorite songs from CDs. In other words, you can collect songs on a number of CDs and merge them into a single CD. There are 3 sub-functions: CD to CD, CD to HDD and Close Session. Refer to page 26 for the menu.

> 10. Edit Track

### 5.2.10.1 CD to CD Edit

To select songs from source CD, and then burn into a blank CD-R/RWs.

> 10-01. Edit Track
> CD to CD Edit

Enter into 10.-01 function, 1/10 means the number one of the 10 tracks, and 03:55 means the length of track.

> Select Track
> 1/10    03:55

You can press ▼ to see the rest of tracks. If you want to select the track, press **ENT** then a "+" will shows up, press **ENT** again will cancel the selection.

> Select Track
> End    5Trk15:55

After selection, use ▲▼ move to the "End" which is between 1st track and last track.

Press **ENT** to end of selection, and use ▲ ▼ to confirm Yes or No.

Press **ENT** after burning, system will ask if you want to continue edit, use ▲ ▼ to confirm Yes or No.

If you want to continue edit, the current source CD will be ejected and ask you to insert next disc. Repeat the above process for editing.

> Insert next disc

After editing, system will show "Close all disc's session ? Yes", use ▲ ▼ to confirm Yes or No.

Once session is closed, no more tracks can be added.

> Close all disc's
> Session ? Yes

### Attention:

Commercial audio player might not able to play open session disc, close session is suggested for max. compatibility.

### 5.2.10.2 CD to HDD Edit

To select tracks from single or multi-audio CD and create image to specific partition of HDD

> 10-02. Edit Track
> CD to HDD Edit

The basic operation method is same as CD to CD Edit, system still ask you to insert empty disc even the target drive is HDD. If burning successful, system will show "Image load OK", which means the selected tracks are written to temporary partition.

Press ENT after burning, system will ask if you want to continue edit, use ▲ ▼ to confirm Yes or No.

If you want to continue edit, the current source CD will be ejected and ask you to insert next disc. Repeat the above process for editing.

If "No" is selected, system will show "Burn or Move to partition ?", use ▲ ▼ to confirm Burn or Move.

Burn : Burn the selected tracks to CD

Move to partition : Create an image for selected tracks.

```
Moving to P :     B
OK !
```

### 5.2.10.3 Close Session

Single session format is used for Audio CD, and commercial audio player is not able to play open session audio CD, therefor session must be closed to max. playback compatibility. However, no more tracks can be added once session is closed.

```
10-03. Edit Track
Close Session
```

## 5.2.11 Mode Select

Now select Model Select and enter the following figure. This is for choice Duplicator's copy mode. ARS-2051PC/2074C/2078C provided DVD-Copier mode and Flash Copier (default is Flash Copier).

```
11. Mode Select
```

Press ENT to enter the next figure. The default is Flash Copier. Press ▼ to select Flash Copier.

```
Change Mode to
FlashCopier? Yes
```

Press ENT and Duplicator will auto reboot to Flash Copier.

```
1. Mem.Card Copy
```

## 5.2.12 Setup

To change the default setting. However, it is suggested to use the default for the optimal operation. There are 22 sub-functions: Language, Burn Speed, Auto Start Drive, Auto Verify, Auto Compare, Auto Prescan, Eject Disc, Burn On The Fly, Burn Mode, Display Time, Button Sound, Device Info, System Info, Quick Erase, Full Erase, Auto Close Tray, Quick Compare, Tray-In/Out, BootTime Delay, Start Tray Eject, Disc Redetect and Show Burn Speed. Refer to page 27 for the menu.

```
12. Setup
```

### 5.2.12.1 Lanuage

Now press ENT, and you will enter the following figure. The function Language lets you select a language in which messages can be shown on LCD.

```
12-01. Setup
Language
```

Press ENT. The default is English. Spanish, Japanese, Traditional Chinese and Simplified Chinese are made to order.

### 5.2.12.2 Burn Speed

Now press ESC and ▼ to enter the following figure. This function lets you control the burning speed of CD writers.

```
12-02. Setup
Burn Speed
```

Press ENT. The DVD Burn Speed will be shown and the default is 16X. Press▼ for change the selection. The selection to CD Burn speed and the default setting is Maximum.  Press ▼ for change to Audio Burn Speed the selection and the default is Maximum
.

### 5.2.12.3 Auto Start Drive

System will auto start to copy or test once blank disc is ready.

```
12-03. Setup
Auto Start Drive
```

The default is Off. Press ▼ to select 1 (one blank DVD).

### 5.2.12.4 Auto Verify

To set if auto verify target disc's readability after copy function.

```
12-04. Setup
Auto Verify
```

Press ENT. The default is Off. Press ▼ to select On.

### 5.2.12.5 Auto Compare

To set if auto do comparison after copy function to check if source and target disc are identical.

```
12-05. Setup
Auto Compare
```

The default is Off. Press ▼ to select On.

### 5.2.12.6 Auto Prescan

To set if auto scan source disc before copy function.

```
12-06. Setup
Auto Prescan
```

The default is Off. Press ▼ to select On.

**5.2.12.7 Eject Disc**

There are 3 kinds of tray behavior when copy process is completed.

Eject Good Only: Only good disc will be ejected after burning.
Eject All Disc      : All discs will be ejected after burning.
Do Not Eject        : All discs stay in after burning.

```
12-07. Setup
Eject Disc
```

The default is Eject Good Only.

**5.2.12.8 Burn On The Fly**

Burn On The Fly means data will be copied directly from the source disc to the target disc. When the setting is Off, the data will be loaded into temporary partition of HDD first, then copy from HDD to disc.

```
12-08. Setup
Burn On The Fly
```

The default is On. Press ▼ to select Off.

**5.2.12.9 Burn Mode**

There are two modes: DAO (Disc At Once) and TAO (Track At Once).

```
12-09. Setup
Burn Mode
```

The default is DAO. Press ▼ to select TAO.

**5.2.12.10 Display Time**

To set if display a timer while copying.

```
12-10. Setup
Display Time
```

The default is On. Press ▼ to select Off.

**5.2.12.11 Button Sound**

To enable or disable beep sound while press a key.

```
12-11. Setup
Button Sound
```

The default is On. Press ▼ to select Off

**5.2.12.12 Device Info**

To show the writer information.

```
12-12. Setup
Device Info
```

### 5.2.12.13 System Info

To show system Information.

```
12-13. Setup
System Info
```

### 5.2.12.14 Quick Erase

To erase data on the DVD rewriteable discs quickly.

```
12-14. Setup
Quick Erase
```

### 5.2.12.15 Full Erase

To erase data on the DVD rewriteable discs completely. Compared with Quick Erase, Full Erase takes longer time to do the job.

```
12-15. Setup
Full Erase
```

### 5.2.12.16 Auto Close Tray

All tray will be closed in selected time and if disc is ready, system will auto start copy, test or both functions, depends on which function is stay on the LCD screen.

```
12-16. Setup
Auto Close Tray
```

### 5.2.12.17 Quick Compare

Quick Compare is related to function#5 Compare. Once compare error  byte reach to the setting figures, compare process will stop.

```
12-17. Setup
Quick Compare
```

The default is Off, press ▼ to select 1 Byte, 1 KB, 10 KB, 100KB, 1 MB, 10MB, 100MB etc.

### 5.2.12.18 Tray-In/Out

Lets you control the drive tray ejecting.

```
12-18. Setup
Tray-In/Out
```

Press ENT. The default is All Once and there have Divide 2 Times for selection.

### 5.2.12.19 BootTime Delay

To set the device scanning time during the system booting.

```
12-19. Setup
BootTime Delay
```

The default is 5 second, more option is up to 99 seconds.

### 5.2.12.20 Start Tray Eject

To set if do eject all tray after system boot up.

```
12-20. Setup
Start Tray Eject
```

The default is On. Press ▼ to select Off.

### 5.2.12.21 Disc Redetect

The function is designed specially for bad quality disc,  the system will detect the disc one more time if disc recognition error occurred.

```
12-21. Setup
Disc Redetect
```

The default is Off. Press ▼ to select On.

### 5.2.12.22 Show Burn Speed

Now press ESC and ▼ to enter the following figure. This function lets LCD shows the burning speed of CD/DVD writers.

```
12-22. Setup
Show Burn Speed
```

The default is On. Press ▼ to select Off.

## 5.2.13 Adv Setup

Function#13 Adv Setup lets you change the system configuration. This function includes 22 subfunctions: UnderRun Protect, Overburn, Read Error Skip, Format HDD, Verify HDD, Burn-in, Update Firmware, Compare Firmware, H/W Diagnostic, Load Default, CD+G, ISRC & MCN, USB Option, CD-TEXT, Password, Disc Counter, Auto Save Image, Update Drive F/W, F1 Hotkey Setup, F2 Hotkey Setup, Index and AutoRun Time. Refer to page 28 for the menu.

Under the first layer on function menu, press ESC for 2 seconds to enter Function#13-01 as the following figure shows.

```
13. Adv Setup
```

### 5.2.13.1 UnderRun Protect

UnderRun Protect lets you control On and Off of Buffer Under Run Protection.

```
13-01. Adv Setup
UnderRun Protect
```

Press ENT to enter the following figure. UnderRun Protect lets you control On and Off of Buffer Under Run Protection. The default is On. Press ▼ to select Off.

```
UnderRun Protect
On
```

### 5.2.13.2 Overburn

Now press ESC and ▼ to enter the following figure. Overburn lets you decide whether to copy beyond the limit of the media or not.

> 13-02. Adv Setup
> Overburn

Press ENT to enter the following figure. The default is Off. Press ▼ to select On. Overburn may cause a DVD writer to be damaged and data incomplete.

> Overburn
> Off

### 5.2.13.3 Read Error Skip

Now press ESC and ▼ to enter the following figure. Read Error Skip is to ignore any error that occurs during copying. Under normal circumstances, when an error occurs during copying, a message will appear on LCD. Yet, you can use Read Error Skip to copy some defective medias.

> 13-03. Adv Setup
> Read Error Skip

Press ENT to enter the following figure. The default is Off. Press ▼ to select On.

> Read Error Skip
> Off

### 5.2.13.4 Format HDD

Now press ESC and ▼ to enter the following figure. Format HDD is to partition the hard disk. But after formatting, all data on the hard disk will be deleted.

> 13-04. Adv Setup
> Format HDD

If your copy controller doesn't connect with a hard disk, LCD will show the message as follows.

> No Valid HDD!
> Select HDD First!

If your copy controller is connect with a hard disk, LCD will show the partition size is F_S.

> HD Partition
> SizeSelect? F_S

Press ENT to enter the following figure. All data on the hard drive will be lost after the format and you are asked to confirm again. The default is No. Press ▼ to select Yes.

> All data will be
> Lost format? No

After the hard drive is formatted correctly, LCD will show the message as follow. Press ENT to verify HDD or press ▼ and choose No to finish Format HDD.

> Format HDD ok!
> verify HDD?  Yes

### 5.2.13.5 Verify HDD

Now press ESC to return to Function#13, and then select part 5 Verify HDD as the following figure shows. Verify HDD is to verify if the hard disk or any of its partitions can work well.

```
13-05. Adv Setup
Verify HDD
```

Press ENT to enter the next figure. Use ▲ ▼ to confirm Disk or Parti.

```
Verify Disk or
Paration? Disk
```

Press ENT to verify. After verification LCD will show the results as follows.

```
Verify HDD
OK
```

### 5.2.13.6 Burn-in

Now press ESC and ▼ to enter the following figure. Burn-in is to simulate Erease&Copy, Testing and Comparing progress many times. The time can be from 1 to 1000. After each cycle of simulation, the medias on the DVD writers will eject automatically and recede for the next bout of simulation.

```
12-06. Adv Setup
Burn-in
```

Press ENT to enter the next figure. Test is simply a simulation. And there are Compare and Erase&Copy options can be selected.

```
Burn-in
Test
```

Press ENT and use ▲ ▼ to select the time of trayout such as 10sec,30sec,60sec,90sec ...150sec or 180sec. The figure below shows 60sec.

```
Sel Trayout Time
60 sec
```

Press ENT and use ▲ ▼ to select the time of simulation such as 1, 2, 3...1000 or Run Continuous. The figure below shows Run Continuous.

```
Sel burn-in num:
Run Continuous
```

> **Attention**
> "Erase & Copy" is doing erase & write repeatedly, only Rewriteable media is supported.
> "Compare" is used to compare the source & target if they identical. Audio CD is not supported due to no ECC.
> "Test" is doing copy simulation, DVD+R is not supported.

### 5.2.13.7 Update Firmware

Now press ESC and ▼ to enter the following figure. Update Firmware is to update firmware to the latest version. But you should get the firmware first.

```
13-07. Adv Setup
Update Firmware
```

You can get the latest firmware version from ACARD by e-mail, or download it directly from the web site: **http://www.acard.com** Then, unzip the file of .zip and copy it into a CD-RW. If the file is .bin, you don't need to unzip.

After placing the media into the DVD-ROM , press ENT. The system will begin searching the new firmware and show the message on LCD as follows after it finds the new firmware. Then press ENT to update.

```
Searching F/W ---
XXX/XXXX
```

### 5.2.13.8 Compare Firmware

Now press ESC and ▼ to enter the following figure. Compare Firmware is to compare the current firmware version and the newly downloaded version. It can prove if the downloaded version is the newest one.

```
13-08. Adv Setup
Compare Firmware
```

### 5.2.13.9 H/W Diagnostic

Now press ESC and ▼ to enter the following figure. H/W Diagnostic is to test the system

```
13-09. Adv Setup
H/W Diagnostic
```

Press ENT to enter the next figure, and begin the LCD test. After that, the system will do the button test, self-test of SDRAM, the hardware connection test and flash test. All test results will be shown on LCD. It is the easiest way to know if the system can work well.

```
LCD Test Start
```

When all tests finishes, LCD will show the message as follows

```
Test finished
```

### 5.2.13.10 Load Default

Now press ESC and ▼ to enter the following figure. Load Default is to make all changed settings return to defaults.

```
13-10. Adv Setup
Load Default
```

Press ENT to enter the next figure. Use ▲ ▼ to confirm Yes or No.

```
Load Default
Config?Yes
```

When default loading finishes, LCD will show the results as follows.

```
Load Default
OK
```

### 5.2.13.11 CD+G

Now press ESC and ▼ to enter the following figure. CD+G is a kind of special copying format. This function supports this special format.

```
13-11. Adv Setup
CD+G
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On.

```
CD+G
Off
```

### 5.2.13.12 ISRC & MCN

Now press ESC and ▼ to enter the following figure. ISRC and MCN are special copying formats. This function supports them.

```
13-12. Adv Setup
ISRC & MCN
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On.

```
ISRC & MCN
Off
```

### 5.2.13.13 USB Option

Now press ESC and ▼ to enter the following figure. USB Option lets you switch to the USB mode if your copy controller has connected with a PC.

```
13-13. Adv Setup
USB Option
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On.

```
USB Option
Off
```

When USB option is On, the original "13. Adv Setup" will change to "14. Adv Setup", and the hidden "13. USB Mode" will appear in the first layer of function menu.

```
13.USB Mode
```

### 5.2.13.14 CD-TEXT

Now press ESC and ▼ to enter the following figure. CD-TEXT is a kind of special copying format. This function supports this special format.

```
13-14. Adv Setup
CD-TEXT
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On.

```
CD-TEXT
Off
```

### 5.2.13.15 Password

Now press ESC and ▼ to enter the following figure. Password is set to protect your copy controller.

```
13-15. Adv Setup
Password
```

Press ENT to see the following figure. The default is Off.

```
Password
Off
```

Press ▼ to see the following figure. Change means to change a default or an old password into a new one.

```
Password
Change
```

Press ▼ to see the following figure.

```
Old  Password
?
```

Use ▲ ▼ to key in the default, 85122290. A password should be composed of 1 to 13 characters. The character can be A, B, C, etc. or 1, 2, 3, etc. or the combination of both. After selecting a desired number or alphabet, remember to press ENT.

```
Old  Password
8?
```

After keying in the old password, remember to press ENT to confirm. Then the following figure will appear.

```
New Password
?
```

When it is correct, you will see the following figure. You have 3 chances to enter your password. If you forget your password, return the copy controller to ACARD for help.

```
Change
OK!
```

### 5.2.13.16 Disc Counter

Now press ESC and ▼ to enter the following figure. Disc Counter records how many discs you have copied.

```
13-16. Adv Setup
Disc Counter
```

Press ENT to see the following figure. View means to see the records.

```
Disc Counter
View
```

Press ENT. JC in the following figure means Job Counter; that is, every copying task. It records the number of discs you have copied, and can be deleted.

```
JC  OK: 000000001
Fail    :000000000
```

> **Attention**
> There is another record of LC (Life Counter). It also records the number of discs you have copied so far, but cannnot be deleted. You can veiw the record of LC by holding down ESC when LCD shows the finding of writers. Press ▲ to leave.

Press ▼. The following figure shows the record in DVD writer 2. You can press ▼ to see the records in other writers. This kind of record can be deleted, too.

```
02  OK: 000000001
Fail    :000000000
```

Press ▲ to return to the record of job. Then press ENT to return to the next figure.

```
Disc Counter
View
```

Press ▼ to see the following figure. It is to delete the record in job. Use ▲ ▼ to confirm Yes or No.

```
Disc Counter
Del Job Counter
```

Press ▼ again to enter the following figure. Dev means the device of DVD writer.

```
Disc Counter
Del Dev Counter
```

Press ENT to see the following figure. If you want to delete the record in DVD writer 2, you can press ENT, otherwise press ESC to exit.

```
Del 02 Counter
Ent: Del  Esc: Exit
```

### 5.2.13.17 Auto Save Image

Now press ESC and ▼ to enter the following figure. Auto Save Image can save an image file automatically into your designated partition of HDD.

```
13-17. Adv Setup
Auto Save Image
```

Press ENT to enter the next figure. The default is Off. Press ▼ to select On.

```
Auto Save Image
Off
```

### 5.2.13.18 Update Drive F/W (For supported drive only)

If you can see this item, that would mean the drive connected is supported. This function lets you update drive's F/W through controller.

```
13-18. Adv Setup
Update Drive F/W
```

Please visit drive's offical website to download firmware first, then burn into a CD-R/RW.

```
No F/W File
```

### 5.2.13.19 F1 Hot Key Setting

Now press ESC and ▼ to enter the following figure. This function let you change the F1 Hot Key function.

```
13-19. Adv Setup
F1 Hotkey Setup
```

Press ENT to enter the next figure. The default is Copy.

```
F1 Hotkey Setup
0. Burn Speed
```

Press ▼ could select as 1. Copy, 2. Test, 3. Test&Copy, 4. Verify, 5. Compare, 6. Prescan, 7. Disc Info, 8. Select Source, 9. Image, 10. Edit Track, 11. Mode Select, 12. Setup and 13. Adv Setup. Please press ENT to confirm the selection.

### 5.2.13.20 F2 Hot Key Setting

Now press ESC and ▼ to enter the following figure. This function let you change the F2 Hot Key function.

```
13-20. Adv Setup
F2 Hot Key Setting
```

Press ENT to enter the next figure. The default is Mode Select.

```
F2 Hot Key Setting
11. Mode Select
```

Press ▼ could select as 11. Mode Select, 12. Setup, 13. Adv Setup, 1. Copy, 2. Test, 3. Test&Copy, 4. Verify, 5. Compare, 6. Prescan, 7. Disc Info, 8. Select Source, 9. Image and 10. Edit Track. Please press ENT to confirm the selection.

*Note: The Hot Key function could make job to work more efficiency.*

### 5.2.13.21 Index

Now press ESC and ▼ to enter the following figure. Index is a kind of special copying format. This function supports this special format.

```
13-21. Adv Setup
Index
```

Press ENT to see the following figure. The default is Off.

```
Index
Off
```

### 5.2.13.22 AutoRun Time

Now press ESC and ▼ to enter the following figure. AutoRun Time can a copy automatically within few seconds.

```
13-22. Adv Setup
AutoRun Time
```

Press ENT. The default is 5 second.

```
AutoRun Time
5
```

Press ▼ could select as off or 1~99 second.

Press ENT to confirm the selection.

# Chapter 6 Troubleshooting

## 6.1 About LCD

After you power up, if there is no display on the LCD, check if the connection of power cord is firm and the environment of power outlet is normal.

## 6.2 About Error Messages

During Copy, Test, Compare and Verify, etc. if you press ESC to abort, an error message will appear on LCD. Abortion may cause the copy controller to hang up,therefore you have to power on again.
If reading fails, an error message will appear on LCD. Get a new source DVD to try again.
If the copy controller hasn't detected any device after powering on, an error message will appear on LCD.

## 6.3 Compatible Flash Media

The following flash media have been tested and they function normally with the ARS-2051PC/2074C/2078C.

Memory Card Support :
CF slot : CF / MD (up to 16 GB)                          SD solt : SD / SDHC (up to 32GB)
MS solt : MS / MS pro / MS duo / MS pro duo              SM slot : XD / XD-M / XD-H / SM

## 6.3 About DVD-ROM/DVD Writers

If a DVD-ROM or a DVD writer cannot read, confirm the format of the source DVD and check if it is damaged.
Use any DVD writer to read the source DVD. If it works, the DVD-ROM is probably defective or not compatible with the source DVD.

## 6.4 About Buttons

If you press any one of the four buttons on the panel, but there is no response, it is perhaps that the button cannot function well. Inspect the jumper setting.

## 6.5 About DVD Writer Not Readable

After copying if the DVD writer is not readable, use Compare to examine, or get another DVD-ROM to test.

## 6.6 About High Failure Rate

If the failure rate of copying is high, do the following things to improve.

- Lower the speed of DVD writer.
- Inspect if the blank disc's quality is good.
- Update the firmware.
- Inspect the DVD writer's maximum writing speed. If the speed is over 8X, copy the data to a hard disk first, and then transmit to DVD.

## 6.7 About Firmware Update

If you cannot update the firmware, please inspect the firmware. Perhaps you have downloaded a wrong file.
Failure in firmware update may cause the copy controller to fail in booting. Under the circumstances, return the control board to distributor for repair.

## 6.8 About Function#13 and Cancellation

If you want to execute Function#12 Adv Setup, you can press ESC for 2 seconds.
And during operation if you want to cancel a function like Copy, Test, Verify and so on, you can press ESC for 2 seconds, too.

# Appendix A LCD Messages

## 1. Normal Conditions:

**All data will be lost, erase?**.................All data on the disc will be lost. Confirm the erasing of data.
**Analyzing**.......................................................................................Analyze the source disc.
**Audio Disc!!! Can't compare!**................................... The system cannot compare the audio discs.
**Cannot read TOC**...................................................... The system cannot read the contents of disc.
**Check Target Please Wait** ..............................................The system is checking the target device.
**Detect Drives**.....................................................Detect what drives are connected with the system.
**DVD-RW does not Support the Func**............................ .. DVD-RW doesn't support this function.
**Erase Finished**.................................................................. The erasing of data comes to an end.
**Erasing disc**..............................................The system is erasing the data on the disc.
**Fail to get Drive Info!**.................................................. The drive information cannot be obtained.
**Fail to get Src Disc Info!**............................... The information of source disc cannot be obtained.
**Hold ESC to exit**................................................ Press ESC for a second to terminate the test.
**Identical**................................................................ The comparison results are the same.
**Initialize SDRAM**..............................................Initialize the memory of the system.
**Load Default Config?**...................................................Do you want to load the default settings?
**No Erasable Disc in DVD-RW!!**..........................The disc on the DVD-RW device is not rewritable.
**Preparing**........................................................................ The system is preparing to record.
**Press a Key to Eject Fail Disc**.........................Press any key to eject the failed disc after copying.
**Press a Key to Eject Good Disc**..................... Press any ket to eject the good disc after copying.
**Read disc error** .........................................................During comparison the disc cannot be read.
**Save new config Fail!**....................................... The new setting of configuration cannot be saved.
**Source Disc Empty!!!**...................................... The source disc doesn't contain any data.
**Source Disc Not Ready**........................................................ Source disc is not ready to be read.
**Source Drive Not Ready**.............................................................Source drive is not ready to read.
**Src&Tgt can't in the same channel**...............................................................................................
...............................During comparison the source and target discs cannot be in the same channel.
**Target Disc Not Empty!!!**................................................. The target disc still has data.
**Target Disc Not Ready**.................................................. Target disc is not ready to be written into.
**Target Drive Not Ready**..............................................................Target drive is not ready to write.
**Target overflow**...................................... The target disc hasn't enough capacity to store new data.
**TOC not match**............................................................. The comparison results are not the same.
**User Abort!**...............................................................................Cancel the job during operation.

## 2. Connecting with a HDD:

**All data will be lost, format?**...............................................................................................
..........................................All data on the hard disk will be lost. Confirm the formatting of hard disk.
**Delete Image in Partition xx?**............................Confirm the deleting of data image in partition xx.
**Format HDD?**................................................................ Ask if you want to format the hard disk.
**Format HDD OK!** ..............................................The Formatting of hard disk has been completed.
**HDD not Format!**.........................................................The hard disk hasn't been formatted yet.
**HDD too small** ............................................................. The capacity of hard disk is too small.
**HDD too small to handle image!**..................................................................................................
............................The hard disk hasn't enough capacity to store the data image (at least 5Gbytes).
**Image Exists Overwrite?**...............................................................................................................
....................................There is a data image in the current partition. Confirm the overwriting of data.
**Image load Fail**.............................The image isn't successfully loaded from DVD to the hard disk.
**Image load OK**................................. The image is successfully loaded from DVD to the hard disk

**No Image in Partition xx**........................................................There is no data image in partition xx.
**No Valid HDD!**..................................................................... The system cannot find a hard disk.
**Partition Damage**................................................................................The partition is damaged.
**Select HD First!**.................................................................. Select a formatted hard disk at first.
**Verify Disk or Partition?**............................. Do you want to verify the hard disk or just a partition?
**Verify Hard Disk Fail!**...................................................... The hard disk is not verified successfully.

## 3. Audio Editing:
**Burn or Move to partition?**.............................................................................................................
.................................Do you want to directly copy the data into disc or move them to the partition.
**Can't edit HDD**........................................... The hard disk cannot be edited as a source audio disc.
**Close all disc's session?**...................................................... Confirm the closing of disc sessions.
**Continue edit next Disc?**................................. Ask if you want to continue the music disc editing.
**End edit disc and burn?**........................................ Finish the music disc editing and start to copy.
**Erase selected Tracks?**................................................. Abort the selected tracks and delete them.
**Ins empty disc Continue?**.................... Do you want to insert a blank disc and continue copying?
**Insert next disc**..................................................................................... Insert the next audio disc.
**NO AUDIO track in this disc**.................................................. The source disc has no audio track.
**Sessions were closed already!** ............................ The disc sessions have already been closed.
**Target Overflow Re-Select**..............................................................................................................
.........................The disc capacity is not enough to store the selected tracks. Please select again.
**Tgt overflow, del last trk?**.................................................................................................. The
disc capacity is not enough to store the selected tracks. So, do you want to delete the last track?

## 4. Firmware Update:
**Check Sum Error!**.................................................................. The udpated firmware has errors.
**Flash ROM fail!**............................................................... Data cannot be written into Flash ROM.
**Invalid firmware** ........................................................... The disc doesn't contain a valid firmware.
**Last update F/W Fail!**................................................... The firmware is not updated successfully.
**Last update F/W OK!**.......................................................... The firmware is updated successfully.
**Searching F/W** ....................................................... The system is searching for a valid firmware.
**Source can't be Hard Disk!**...........................During comparison the source cannot be hard disk.

# Technical Support Form

Email address: support@acard.com
Website: http://www.acard.com

| **Model Name*** (ex. ARS-2051PC) | | **Firmware version*** | |
|---|---|---|---|
| **System Configuration** | | | |
| Card Reader model* | | | |
| Motherboard/System model* | | | |
| SCSI host adapter/chip brand & model* | | | |
| SCSI host BIOS version | | | |
| Other I/O card* | | | |
| Operating System* | | | |
| SATA HDD brand & model* | | | |
| SATA HDD capacity | | | |
| SATA HDD firmware | | | |
| **Problem description*** | | | |
| | | | |